

## INFLUENCE OF MODERN MEDIA ON AGRICULTURAL INFORMATION DISSEMINATION: A STUDY OF POULTRY FARMERS IN OYO STATE

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Timely agricultural information is vital for successfully running a farm enterprise, especially in poultry, where late information can be devastating. To reach large audiences at once with timely information, extensionist and agricultural agencies have since implemented modern media. This study aimed at determining the influence of modern media on agricultural information dissemination among poultry farmers in Oyo State. A multistage sampling technique was used to choose 72 respondents, and data was obtained using a self-completed questionnaire and interview schedule. Descriptive analysis showed that most respondents (34.7%) are between 40 and 49 years and are predominantly male (63.9%) with 10 to 12 years of experience keeping poultry birds. The respondents have access to poultry information about diseases, vaccines, feed formulation, and marketing information. Age (\*0.543), years spent schooling 0.597), years in poultry production (\*\*0.174), farm size (0.535), annual income (0.117) have a significant relationship to the influence of modern media. The study revealed that modern media has positively contributed to the poultry farmers' gains and increased their production level and living standard. Based on the study findings, it was recommended that internet connection be improved and more printed materials should be distributed to farmers during visits.

**Keywords:** Agricultural information, Modern media, Information dissemination, Poultry farmers, Agricultural Extension.

### INTRODUCTION

The Nigerian poultry sector is the fastest-growing commercialized animal husbandry subsector in the country. This growth can be attributed to the low capital needed to set up and the increasing demand for poultry products, especially eggs, by the Nigerian. Nevertheless, this growth is not without its difficulties (Heise *et al.*, 2015).

Poultry farmers need sound and timely information to keep up with increasing demand, especially in rural areas. This includes production and marketing information to solve pest infestation, disease outbreaks, unreliable markets, outdated production methods, and procurement of sound inputs. Since there is so much an extension worker can do, attention has been turning towards the medium of mass information dissemination over the years (Oladipo & Olaniyi, 2018).

Unlike traditional mass media, modern media allows for an interactive and personal experience due to its two-way communication feature that incorporates real-time feedback. Modern media comes in various forms, including print media (like magazines and newspapers), television, and

smartphones (e-mails, social media, and the worldwide web). (Oswalt, 2013).

However, farmers have different information needs, which is only helpful if it gets to the recipient in time to be acted upon. Therefore, this paper aimed to determine the influence of modern media on agricultural information dissemination among poultry farmers in the area under study.

**Statement of the problem:** Agricultural information is essential for any country's agricultural and rural development. In Nigeria, information is disseminated to rural farmers through extensionists, radio, film shows, agricultural pamphlets, and state government agricultural agencies.

Despite the various information delivery methods, there is still a significant gap between accessible knowledge and actual practice. This has had a considerable effect on Nigeria's attempt to ramp up food production. Thus, this study was conceived to identify and provide answers to the following research questions:

- Do socio-economic characteristics of the poultry farmers in the study area influence their use of modern media?



- b) What types of modern media are poultry farmers exposed to in the study area?
- c) Do the farmers have access to poultry information and what is their utilization level?
- d) What are the constraints to effective information dissemination in the study area?

**Objective of the study:** The general objective of the study was to assess the influence of modern media on agricultural information dissemination among poultry farmers in the study area, while the specific objectives were to:

- a) Identify the socio-economic characteristics of the poultry farmers in the study area.
- b) Identify types of modern media poultry farmers are exposed to in the study area.
- c) Determine if the farmers have access to poultry information and what is their utilization level.
- d) Determine the constraints to effective information dissemination in the study area.

**Hypotheses of the study:**

- a) There is no significant relationship between the socio-economic characteristics of poultry farmers and the influence of modern media on agricultural information dissemination.
- b) There is no significant relationship between respondents' utilization and the influence of modern media on agricultural information dissemination among poultry farmers.

## MATERIALS AND METHODS

**Study area:** The study was conducted at Lagelu Local Government Area of Oyo State, Nigeria. The State is positioned between latitudes 7° 3' and 9° 12' north of the equator and longitudes 2° 47' and 4° 23' east of the Meridian and covers a total land area of about 27,249 sq. km. The local government was created in 1976, with headquarters at Iyana Offa, and the primary profession of the inhabitants is farming, including large production of palm oil and black soap.

**Sampling procedure & sample size:** A two-stage random sampling technique was used to select the study sample. There are 14 wards in the study area, and eight wards were randomly selected as sampling units, representing the first stage of the two-stage sampling process. During the second stage, a random selection of 72 respondents was made from the selected wards to make 72 respondents.

**Method of data collection:** Primary data was used for this study, and it was collected and collated using a well-structured questionnaire. It was given to the literate farmers to fill in the necessary information and administered to the non-literate farmers using an interview schedule.

**Method of data analysis:** Both descriptive and inferential statistics were used to analyze the data collected in the study. The descriptive statistics utilized are frequency counts, percentages, and mean, while the inferential statistics used are

Pearson Product Moment Correlation (PPMC) and Chi-square analysis.

## RESULTS AND DISCUSSION

### Socio-economic characteristics of respondents

**Respondents' age:** Table 1 shows that 25% of the respondents were between 30-39 years, while 13.9% were 50 years and above. The table also reveals that 34.7% of the respondents are between 40-49 years, and the mean age was 42 years. This shows that the youths and middle-aged farmers are the most actively involved in poultry production, which is likely to positively affect their use of modern media to access agricultural information. This finding is backed by Oladipo & Olaniyi, (2018) and Folitse *et al.*, (2018), who found out that middle-aged farmers and youth are producing poultry birds and their allied products.

**Respondents' gender:** The study revealed that 63.9% of the respondents were male, and 36.1% were female. This can be attributed to the energy and time requirement of keeping poultry birds. This finding agrees with the research finding of Abubakar *et al.*, (2009) that males are running most farm enterprises due to the labor requirements. At the same time, females are mainly involved in the processing and selling of the output gained from such enterprises.

**Respondents' religion:** Data obtained from the respondent during the research presented in table 1 show that 59.7% of respondents practice Islam while 38.9% practiced Christianity. This means that people with different religious beliefs live peacefully in the study area raising poultry birds which translates that poultry farming is not a function of religion.

**Respondents' household size:** The study showed that 23.6% of the respondents have a household size of fewer than five people, while 37.5% have between 5 to 6 people in their households. 25% of the respondents have 7 to 8 people in their household, while 13.9% have nine people and above as their household size.

The mean household size is six persons, which translates to a moderate household size typical of any rural household requiring extra farm labor. This agrees with Agwu *et al.*, (2008), who stated that in the presence of constraint of farm labor availability, household size of 5 to 6 people tend to use family members as a source of labor.

**Respondents' educational level:** The data showed that 4.2% of the respondents have no formal education, while 47.2% have primary and secondary education. Also, 38.9% attended a tertiary institution to further their academic pursuit after leaving secondary school. 9.7% of the respondents proceeded for a second and third degree to bag masters and doctorate degrees in addition to their first degrees.

This means that formal education could help the poultry farmers understand and assimilate the information they obtain from modern media sources. This finding agrees with

DiMaggio & Cohen (2003) that education makes people more curious to find new information.

**Agricultural enterprise of respondents Farm size (plot):** Table 2 shows that 83.3% of the respondents raise their poultry birds on 1 to 2 plots of land, while 13.9% use 3 to 4 plots of land to rear their birds. However, 1.4% of the respondents use 5 to 6 plots of land, while 1.4% use over seven plots of land. The average farm size in plots is two plots, and this means they are small-scale resource farmers.

**Years spent in poultry production:** Table 2 also shows that 38.9% of the respondents have between 10 to 12 years of experience keeping poultry birds, with the mean years of experience being 11 years. This indicates that most of the respondents have been in poultry production for a long time, which might be an advantage in utilizing the information they obtain from the modern media in the study area. This is in line with Rehman *et al.*, (2013), who indicated that having long years of production experience helps farmers to accept innovation.

**Table 1. Distribution of Respondents according to Socioeconomic Characteristics.**

Variables	Frequency	Percentage	Mean
<b>Age</b>			
≤ 30	13	18.1	42
30 – 39	18	25	
40 – 49	25	34.7	
50 – 59	10	13.9	
60 ≥	6	8.3	
<b>Sex</b>			
Male	46	63.9	
Female	26	36.1	
<b>Religion</b>			
Islam	43	59.7	
Christianity	28	38.9	
None	1	1.4	
<b>Marital status</b>			
Single	10	13.9	
Married	60	83.3	
Divorced	1	1.4	
Widowed	1	1.4	
<b>Household size</b>			
< 5	17	23.6	6
5 – 6	27	37.5	
7 – 8	18	25.0	
9 and above	10	13.9	
<b>Educational level</b>			
0	3	4.2	12
6 – 12	34	47.2	
13 – 19	28	38.9	
20>	7	9.7	

Source: Field survey, 2019

**Type of poultry birds kept:** Results showed that 51.4% of the respondents raise layer birds while 25% specialize in broiler production. Similarly, 15.3% produce turkey while 8.3% raise point of lay birds. This means that most of the farmers are into egg production using layer birds. This is backed by Tsado *et al.*, (2017) findings that most poultry farmers rear birds for eggs due to its high market demand.

#### Access to modern media information

**Different types of modern media available:** Table 3 shows that 15.3% of the respondents indicated the availability of magazines while 59.7% indicated smartphone availability. Also, 25% indicated the availability of television. The finding indicates that different types of modern media are available in the study area for respondents, with smartphones being the most used. This development will allow the poultry farmers to quickly access and comprehend any needed information relating to poultry production and their allied products.

**Table 2. Distribution of the respondents according to agricultural enterprise .**

Variables	Frequency	Percentage	Mean
<b>Farm size(plot)</b>			
1 – 2	60	83.3	2
3 – 4	10	13.9	
5 – 6	1	1.4	
7>	1	1.4	
20>	7	9.7	
<b>Years spent in poultry production</b>			
<10	15	20.8	11
10 – 12	28	38.9	
13 – 15	10	13.9	
16 – 18	6	8.3	
19>	13	18.1	
<b>Types of birds kept</b>			
Layers	37	51.4	
Broilers	18	25.0	
Turkey	11	15.3	
Point of lay	6	8.3	

Source: Field survey, 2019

**Access to poultry information:** The analysis result in table 3 shows poultry farmers' access to poultry information using modern media. The table shows that 100% of the respondents have access to poultry information.

**Type of poultry information available:** Breakdown of the farmers with access showed that who have access, 30.6% have access to information about diseases and vaccines, while 34.7% have access to feed formulation information. The table also shows that 27.7% have information regarding markets and marketing channels while 6.9% have information about general marketing tips. This shows that the respondents have access to information regarding poultry production, which means that they are more likely to use information

disseminated on modern media sources to enhance their production level and overall farm output.

**Relevance of information on the modern media available:** Data collected showed that 44.4% of the respondents claimed that the information on the modern media was highly relevant, while 38.9% reported that the information was moderately relevant. The finding indicated that over half of the respondents considered the disseminated information relevant. If adequately utilized, it may invariably boost their production level and increase income levels for the poultry farmers.

**Level of utilization of the information disseminated:** 45.8% of the respondents highly utilize the poultry information they obtain from the modern media, while 37.5% moderately utilize the information. However, 16.7% of the respondents rarely utilize the information they obtain. This means that the information obtained by the respondent from the modern media is being utilized to improve their poultry farming techniques and increase their output, which will lead to higher income/revenue generation.

**Table 3. Distribution of the respondents according to access to modern media.**

Variables	Frequency	Percentage
<b>Types of modern media available</b>		
Magazine	11	15.3
Smartphones	16	59.7
Television	18	25.0
<b>Access to poultry information</b>		
Yes	72	100.0
No	0	0.0
<b>Types of poultry information available</b>		
Diseases and vaccine	22	30.6
Feed formulation	25	34.7
Market information	20	27.7
General farming tips	5	6.9
<b>Relevance of available information</b>		
Highly relevant	32	44.4
Moderately relevant	28	38.9
Not relevant	12	16.7
<b>Level of information utilization</b>		
Highly	33	45.8
Moderately	27	37.5
Low	12	16.7

Source: Field survey, 2019

**Table 4. Distribution of respondents by constraints encountered in utilizing modern media.**

Statement	Frequency	Percentage
<b>Do you encounter any constraint to information dissemination</b>		
Yes	23	31.9
No	49	68.1
<b>Type of constraint faced</b>		
Relevant information is not readily available	12	16.7
Internet connection is sluggish	5	6.9
Untimely information	6	8.3
No response	49	68.1

Source: Field survey, 2019

**Constraints against the use of modern media:** Table 4 shows that 31.9% of the respondents encounter constraints when seeking information using modern media, while 68.1% do not encounter any constraints. Of the 31.9% of the respondents with constraints, 16.7% claimed relevant information is not readily available. In comparison, 6.9% claimed the broadband internet speed in the study area is sluggish, and 8.3% claimed the information they receive is not timely. This means that despite the widespread use of modern media by the respondents in the study area to seek poultry production information, some farmers still encounter different constraints in varying degrees when trying to seek information.

**Test of hypotheses Hypothesis 1:** There is no significant relationship between respondents' socio-economic characteristics and the influence of modern media on agricultural information dissemination.

Pearson Product Moment Correlation (PPMC) was used to establish the significant relationship between the independent and dependent variables. The result revealed that some of the socio-economic characteristics variables significantly related to their perceived influence on agricultural information dissemination.

The significant variables include age (\*0.543), years spent schooling (0.597), years in poultry production (\*\*0.174), farm size (0.535), annual income (0.117). This implies that modern media has positively contributed to the poultry farmers' gains and increased production and living standards. Therefore, the null hypothesis is rejected as there exists a test of a significant relationship between the selected socio-economic characteristics of the respondents and their perceived influence of modern media on the dissemination of agricultural information using the Pearson Product Moment Correlation (PPMC) analysis.

**Table 5. Summary of PPMC analysis on the relationship between respondents' socio-economic characteristics and influence of modern media on agricultural information dissemination.**

Socio-economic characteristics	Correlation coefficient	Result	Decision
Age	*0.543	S	Reject H <sub>01</sub>
Years spent schooling	0.597	S	Reject H <sub>01</sub>
Household size	0.032	NS	Accept H <sub>01</sub>
Years in poultry production	**0.174	S	Reject H <sub>01</sub>
Farm size	0.535	S	Reject H <sub>01</sub>
Annual income	0.117	S	Reject H <sub>01</sub>

Source: Field survey, 2019; \* Correlation is significant at 5%; \*\* Correlation is significant at 1%; NS = Not significant; S = Significant

**Hypothesis 2:** There is no significant relationship between respondents' utilization and the influence of modern media on agricultural information dissemination among poultry farmers.

Chi-square was used to establish the significant relationship between the independent and dependent variables. Table 6 revealed that the level of utilization exhibited a significant relationship with the perceived influence of using modern media on agricultural information dissemination. This implies that the poultry farmers are utilizing knowledge from modern media, which has contributed to their increased productivity.

Therefore, the null hypothesis is rejected. There is a significant relationship between the level of utilization of the information disseminated to the respondents and their perceived influence of modern media on disseminating agricultural information using the Chi-square analysis.

**Table 6. Summary of Chi-square analysis on the relationship between respondents' utilization level and influence of modern media on agricultural information dissemination among poultry farmers.**

Characteristics	Chi-square	Df	Result	Decision
Level of the utilization of information	29.58	9	S	Reject H <sub>02</sub>

Source: Field survey, 2019; At 5% level of significance; Df = Degree of freedom; S = Significant

**Conclusion:** Based on the study's findings, it was concluded that modern media has impacted the way poultry farmers operate and manage their farm enterprises. Consequently, this renders modern media a suitable means of reaching many farmers with agricultural information simultaneously. When put together, modern media could be used standalone to disseminate information or complement the work of extension agents to ensure vital information reaches farmers on time. Nevertheless, despite its benefits, farmers encounter roadblocks when accessing information using these mediums;

problems like availability, sluggish broadband internet access, among others. It is therefore recommended that extension agencies provide more of these mediums like magazines during field visits. Also, the government should enact policies that encourage telecommunication companies to improve the internet in rural areas since smartphones are one of the most used modern media.

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